REACH SD Encoder
ENC110
User Manual

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Note:

This user manual is compiled to ensure easy installation and configuration of the product. Please read carefully this manual before using the product, so that you can make best use of all its functions.

This manual is subject to update from time to time without prior notice. If you come

across any problem that cannot be solved according to the manual, please contact our technical department for solutions. Thank you.

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I. Product Overview

1.1 Product Introduction

The SD encoder (ENC110) is the special hardware equipment developed by Shenzhen Reach IT Co., Ltd. for SD video signal (D1/CIF) coding and network transmission. It can be used together with the full range of Multimedia Record & Play Servers of Reach. The SD encoder adopts DSP processing chip and embedded operating system, and features high stability and reliability. This product supports WEB interface management and can be widely used in the applications that require the acquisition of SD video signal and IP based network transmission. It meets the requirements of SD (video) conference, teaching record & play applications.

1.2 Product Parameters

Hardware parameters

Outline dimensions: L x W x H = 240mm×170mm×45.5mm

Weight: 1.35kg

Environmental parameters

Relative humidity: 5%~95%

Operating temperature: -20℃ to 60℃

Electrical specifications

Operating voltage: DC12V /3A

Power consumption: 8W

Network interface

LAN: LAN interface connected to Intranet

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1.3 Product View

Fig.1 REACH ENC110 SD Encoder

1.4 Product Interface

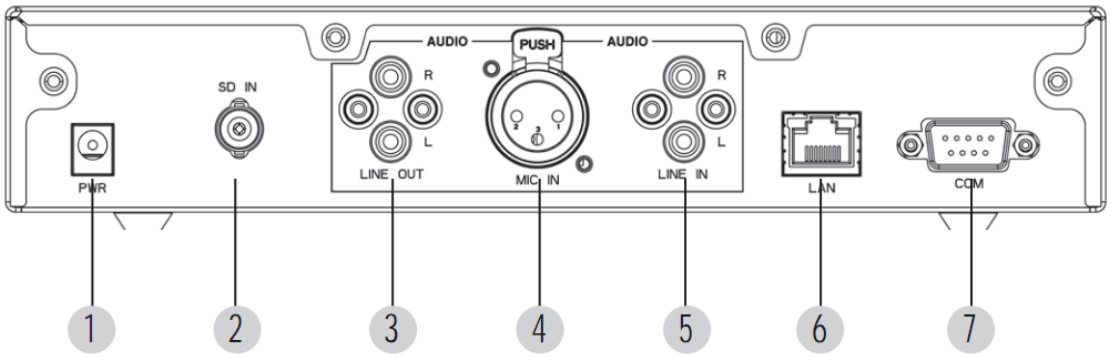

Fig.2 Interfaces of ENC110

1 Power Input
2 Composite Video in (BNC)
3 Line Out
4 MIC In (XLR)
5 Line In
6 LAN
7 COM (RS232)

1.5 Packing List

SN	Name	Qty.	Description
1	ENC110 encoder	1 set	SD video signal acquisition and coding equipment
2	Power adaptor	1 PCS	To supply power to encoder
3	Network cable	1 PCS	To connect LAN
4	Video/audio cable	2 PCS	To transmit the video/audio signal to the encoder
5	BNC connector	1 PCS	To change the composite video interface of the BNC and RCA connector
6	Certificate of conformity	1 copy	

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II. Product Configuration

2.1 Unit Startup

Check the power cable, and ensure that the power adaptor is properly and reliably connected to the unit.

When the power adaptor is connected to the encoder, the PWR LED on the panel will be on, indicating that the external power is connected, and the equipment has started operation.

2.2 IP Address Viewing

The default IP address of the encoder is a random address. You can view the IP address of the current encoder at the rolling information display field of the LCD panel. *(Note: For the convenience of illustration, assuming that the IP address of the encoder is 192.168.1.100, and the subnet mask is 255.255.255.0.)*

To ensure the normal network connection between your computer and the encoder, change the IP address of your computer to the same network segment of the encoder, e.g., 192.168.1.110, 255.255.255.0.

2.3 Normal Startup Confirmation

Before setting the IP address of the encoder, check if the encoder has been normally started. Open the command line mode window with the system tool. For instance, in the Windows system, click Start→run→command to open the command line window, and enter <ping 192.168.1.100> in the command line window, and then click Enter key. If the following message appears, it indicates that the encoder has been normally started.

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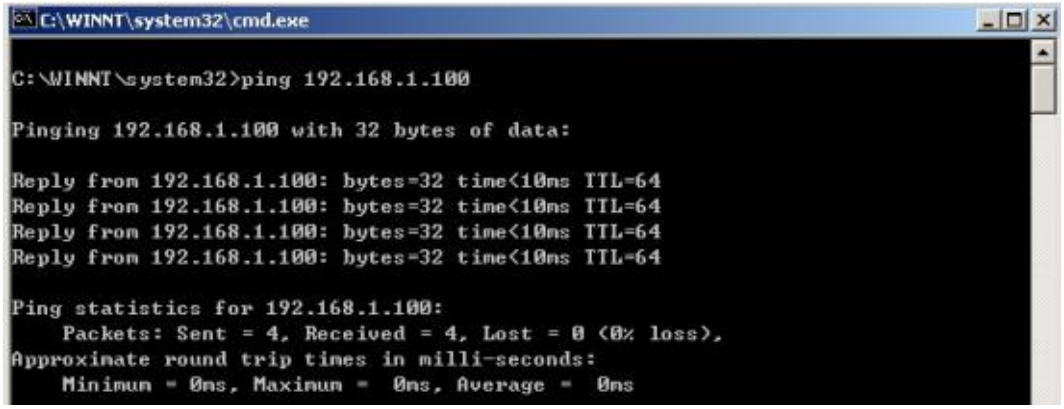
C:\WINNT\system32\cmd.exe
C:\WINNT\system32>ping 192.168.1.100
Pinging 192.168.1.100 with 32 bytes of data:
Reply from 192.168.1.100: bytes=32 time<10ms TTL=64
Reply from 192.168.1.100: bytes=32 time<10ms TTL=64
Reply from 192.168.1.100: bytes=32 time<10ms TTL=64
Reply from 192.168.1.100: bytes=32 time<10ms TTL=64
Ping statistics for 192.168.1.100:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

2.4 Logging on Encoder Configuration Interface

The encoder has built-in WEB server. All the encoder configurations can be performed through the web browser (e.g., Internet Explorer). Enter 192.168.1.100 to the browser address field, and then the following log-on page will appear.

Enter user name: admin (default administrator user)

Enter password: admin (default administrator password) (Note: The default administrator account name of the system cannot be changed, but you can change the password according to the actual needs.)

Click “log on” button to enter the encoder management configuration page, as shown in the following figure:

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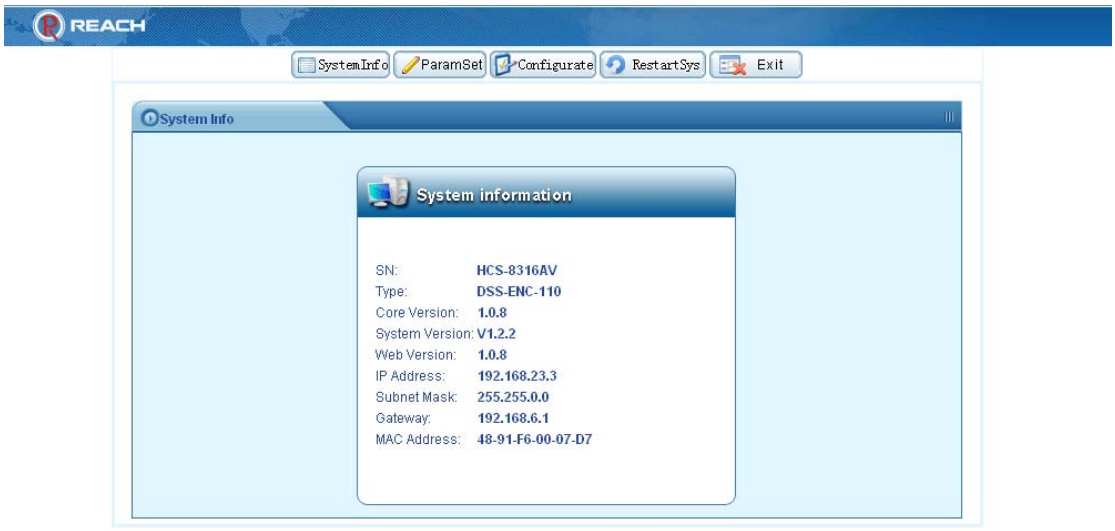
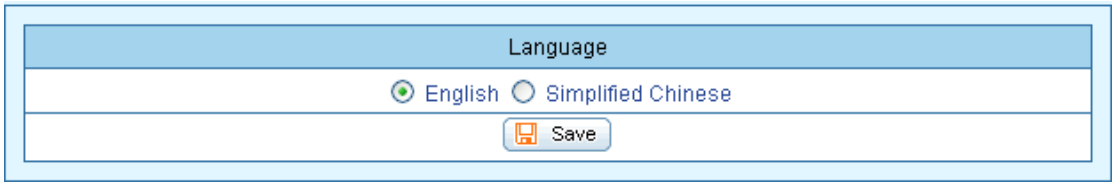


The encoder system configuration interface mainly includes: **system information, parameter setting, system setting, restart and exit.**

2.5 System Setting

Select the “system setting” menu, and then you can set the encoder system language, change the password, upgrade the system and change the encoder IP address.

2.6.1 Set system language



The system supports simplified Chinese interface and English interface. To set the system language, you need to select the corresponding language and then click “save”. The system will exit the log-on interface, and you need to log on the system again.

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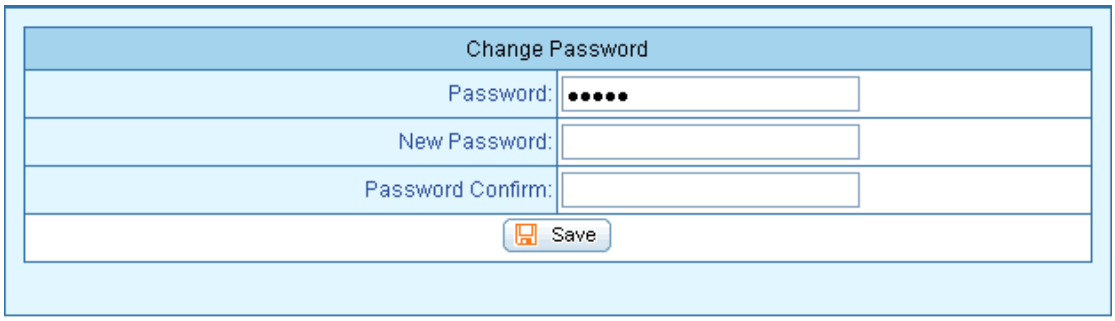
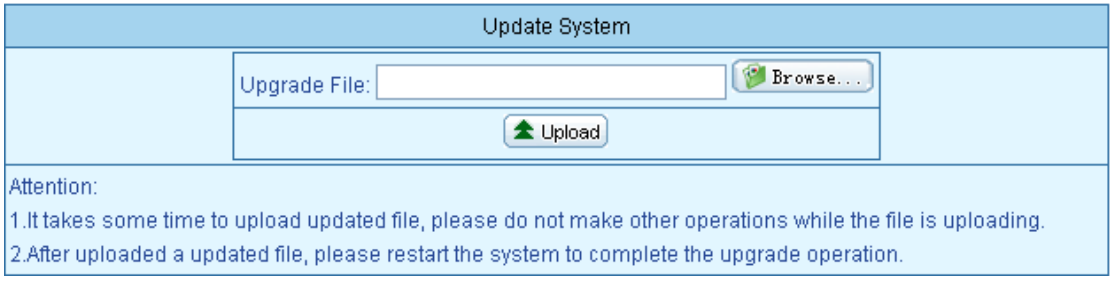
2.6.2 Change password



Enter the old password, and then enter the new password, and click “save”.

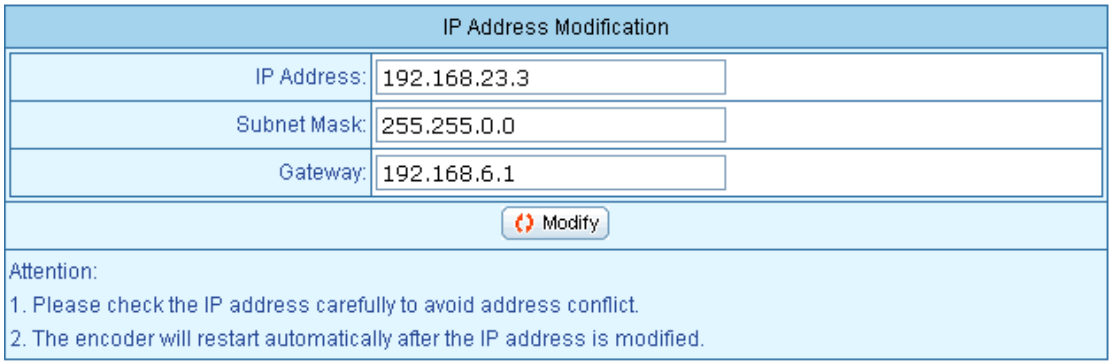
2.6.3 Upgrade system


Update System
Upgrade File:
Browse...
Upload
Attention:
1.It takes some time to upload updated file, please do not make other operations while the file is uploading.
2.After uploaded a updated file, please restart the system to complete the upgrade operation.

(1) Prepare the upgrade package;
(2) Click “browse” to locate the upgrade package file;
(3) Click “upload”;
(4) When the upgrade is completed, the encoder will restart automatically. You can view the “system information” to check whether the system upgrade is successful or not.

Note: The upgrade takes about 3 minutes. Do not perform any other operation during this period. When the upgrade process is finished, the system will restart automatically. The system upgrade is completed after restart.

2.6.4 Change encoder IP address



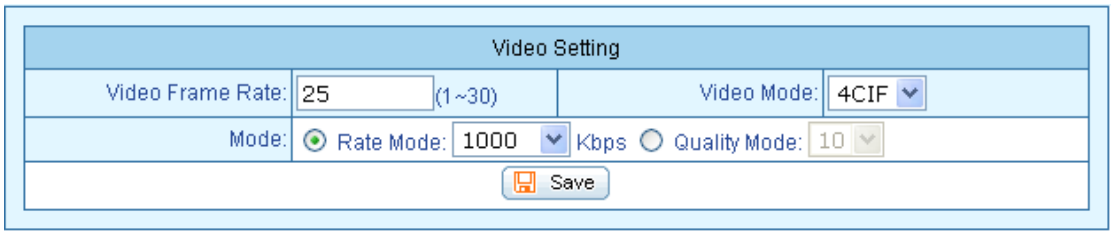
(1) Enter new IP address;
(2) Click “change”;
(3) The encoder will restart automatically to complete the change.

2.6 Parameter Setting

Through the parameter setting, you can set the frame rate, code rate of the encoder to acquire the video/audio signal, the recording quality, the coded image position as well as the caption adding function.

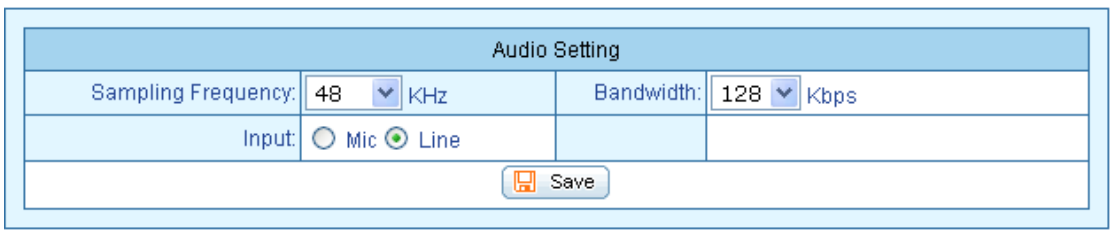
2.7.1 Video setting

Through the video setting, you can set the coding frame rate for the encoder to acquire the video signal and the image mode. The coding mode includes the fixed code rate mode and fixed quality mode. The users with low available network bandwidth are advised to adopt the fixed code rate mode, especially those with the activity of public network live broadcast. They can adjust the coding bandwidth to the appropriate range in the fixed code rate mode.



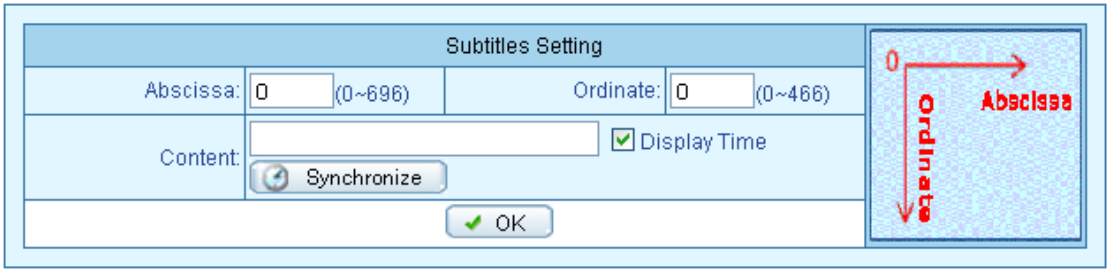
2.7.2 Audio setting

Through the audio setting, you can set the sampling rate and coding frame rate for the encoder to acquire the audio signal, and select the audio acquisition interface according to the actual situation. This product currently supports the acquisition of Mic audio signal and linear audio signal. The users with low available network bandwidth are advised to adopt low audio code rate, especially those with the activity of public network live broadcast. They can adjust the audio code rate to the appropriate range according to the actual needs.



2.7.3 Caption setting

Through the caption setting, you can set captions in the image acquired by the encoder. The caption position can be set thorough the horizontal coordinate and vertical coordinate parameters. To ensure the consistence between the image acquisition time and local time, you can synchronize the time through Synchronize.



2.7.4 PTZ setting and control

The remote control of the camera can be realized through the SD encoder. Before using the PTZ control function of the encoder, please check the control protocol of your camera. The SD encoder currently supports VISCA, PELCO-D and PELCO-P protocols.